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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,095	03/25/2004	John William Kietzman	2003-0687.02	7648
21972	7590	07/01/2005	EXAMINER	
LEXMARK INTERNATIONAL, INC. INTELLECTUAL PROPERTY LAW DEPARTMENT 740 WEST NEW CIRCLE ROAD BLDG. 082-1 LEXINGTON, KY 40550-0999			SMITH, RICHARD A	
			ART UNIT	PAPER NUMBER
			2859	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/809,095	Applicant(s) KIETZMAN ET AL.	
	Examiner R. Alexander Smith	Art Unit 2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040618</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Drawings

1. It appears to the examiner that the method steps for claims 1, 2, 5-9, 15, 18-22 and 27 are not shown. If true, then the drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the method steps of claims 1, 2, 5-9, 15, 18-22 and 27 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5, 10-15, 18 and 23-27 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. 6,892,038 to Fukutani.

Although the entire specification appears relevant, the applicant should note figures 2-5D and column 3, line 61 through column 4, line 61 and column 5, line 54 through column 7, line 18.

Claim Rejections - 35 USC § 103

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 3, 6-9, 16 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukutani.

Fukutani teaches all that is claimed as discussed in the above rejections of claims 1, 2, 5, 10-15, 18 and 23-27 except for the method limitations of claims 3, 4, 6-9, 16, 17 and 19-22.

With respect to the detecting steps include the substep of monitoring a pulse width modulation setting of said motor for each of said first detecting step and said second detecting step: Fukutani discloses that a stepper motor can be employed in which drive pulses sent to the motor by the controller can be counted as an alternative to the method used (column 7, lines 12-18). Therefore the monitoring of drive pulse width modulations, as claimed by Applicant, is considered to be nothing more than the use of one of numerous and well known alternate types

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of monitoring means that a person having ordinary skill in the art would have been able to provide using routine experimentation in order to monitor the first and second detecting steps as already suggested by Fukutani.

With respect to the method further includes a step of calculating a numerical analysis data fit using a rise in said pulse width modulation setting associated with each of said first detecting step and said second detecting step; and wherein said determining step is dependent upon said calculated data fit: Fukutani discloses that the controller (17) with a built-in counter (20) performs calculations (column 4, lines 26-61 and column 6, lines 10-63) based on the pulses to determine the conveyed distance and the speed for each detecting step. Therefore the step of calculating a numerical analysis data fit using a rise in said pulse width modulation setting associated with each of said first detecting step and said second detecting step; and wherein said determining step is dependent upon said calculated data fit, as claimed by Applicant, is considered to be nothing more than the use of one of numerous and well known alternate types of calculating techniques that a person having ordinary skill in the art would have been able to provide using routine experimentation in order to monitor the first and second detecting steps as already suggested by Fukutani.

With respect to the said second transport speed is set at a value which is approximately 0.75% less than said first transport speed: Fukutani states that the second transport speed can be set to an arbitrary value as long as it is lower than the process speed and then gives an example of 95%: Therefore, the limitation regarding 0.75% less, as claimed is only considered to be the "optimum" value of the arbitrary value of the second transport speed disclosed by Fukutani, as stated above, that a person having ordinary skill in the art would have been able to determine

using routine experimentation based, among other things, on obtaining the appropriate amount of loop. See In re Boesch, 205 USPQ 215 (CCPA 1980).

With respect to the substep of setting a threshold value for said rise in pulse width modulation setting and wherein said threshold value is set at an approximately 15% rise in said pulse width modulation setting: Fukutani discloses the counting of pulses being compared to count values previously stored in a table (22 and 23) for the type of medium used and also discloses that the controller provides an acceleration command signal to speed up the 2nd transport medium to the arbitrary speed of Vpu (column 6, lines 3-34). In a broad sense, the values contained in the memory table or the controller's signaling the speed increase are threshold values. With respect to the approximate 15% rise in the pulse width modulation: This limitation is only considered to be the "optimum" values of the pulse width modulation for the stepper motor disclosed by Fukutani, as stated above, that a person having ordinary skill in the art would have been able to determine using routine experimentation based, among other things, on the modulation step for the stepper motor and the corresponding movement of the print media transport assembly and the rotatable member at the first and second nips respectively in order to control the looping and the image quality. See In re Boesch, 205 USPQ 215 (CCPA 1980).

6. Claims 4 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukutani, as applied to claims 3, 6-9, 16 and 19-22 above, and further in view of U.S. 5570633 to Schultz et al.

Fukutani teaches all that is claimed as discussed in the above rejections of claims 3, 6-9, 16 and 19-22 and discloses that the table 20 includes pulse data by which decisions are made by the controller 20.

Fukutani does not disclose the method wherein said data fit is a linear regression data fit.

Schultz et al. discloses that transports and the motors therein have errors and variations in their operation that need to be taken into account and that basic data and its errors can be analyzed to provide an average correction by means of linear regression techniques (abstract and column 55, line 22 through column 57). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the method, taught by Fukutani, to include a linear regression data fit, as suggested by Schultz et al., in order to provide averaging data that best fits the variations in the method involving the image forming apparatus and also the variations in paper in order to simplify calculations and to obtain the desired output, i.e., the amount of looping.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure. The prior art cited in PTO-892 and not mentioned above disclose related methods.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. Alexander Smith whose telephone number is 571-272-2251.

The examiner can normally be reached on Monday through Friday from 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'R. Alexander Smith', with a long horizontal stroke extending to the right.

R. Alexander Smith
Primary Examiner
Technology Center 2800

RAS
June 27, 2005